
TWO-AXIS

POLITICS

VALUES, VOTES AND SOCIOLOGICAL CLEAVAGES
IN FRANCE (1988-2007)

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Translated from French by Sarah-Louise Raillard, PhD

Introduction

The paradoxical survival of voting's "heavy variables"

A paradox emerges when we analyze the social motivations at work behind contemporary French voting trends. The model of "heavy" sociological variables¹ no longer has the same explanatory power it had in the 1970s, but it can still offer insight into the way people vote. Granted, it is difficult, for example, to deny the decline in the working-class vote for the left. Nevertheless, if this class voting no longer seems to exist, the traditional social coalition associated with the right, on the other hand, still endures. Consequently, on 6 May 2007, the blue-collar vote was almost evenly split between Ségolène Royal and Nicolas Sarkozy; for white-collar workers, a slight preference for the right-wing candidate was noted.² But self-employed individuals and farmers, social bastions of the right since at least the beginning of the Fifth Republic, are still characterized by their strong support for this camp. It would thus seem that certain social roots behind voting choices have eroded, while others have endured. This phenomenon is all the more noteworthy when one considers that the rise of the Front national (FN) does not so much explain the transformation of voting choices as much as their persistence.³

Regarding the other traditional "heavy variable" at play in France – religion⁴ – it is difficult to consider it as on the wane. Today, just as in the past, Catholics and especially practicing Catholics are still staunch supporters of the right, despite the fact that they have lost much

1. According to the expression used by Nonna Mayer and Daniel Boy, "Que reste-t-il des variables lourdes?", in Daniel Boy, Nonna Mayer (eds), *L'électeur à ses raisons* (Paris: Presses de Sciences Po, 1997), 101-38.

2. See in particular Florent Gougou, "Les mutations du vote ouvrier sous la Cinquième République", *Nouvelles Fondations*, 5, 2007, 15-20.

3. The left's working-class vote has suffered from competition with the far right, but this competition is often limited to the first round of voting. It would be difficult to explain this erosion in terms of the FN's rise if one considers that the other choice was the traditional right. Moreover, we can also look to the voting records of some working-class individuals who, in 1995, chose Jean-Marie Le Pen in the first round and then Lionel Jospin in the second, thus giving birth to the controversy between the theories of "gaucho-lepénisme" and "ouvriéro-lepénisme" (see Pascal Perrineau, "La dynamique du vote Le Pen: le poids du 'gaucho-lepénisme'", in Pascal Perrineau, Colette Ysmal (eds), *Le vote de crise: l'élection présidentielle de 1995* (Paris: Presses de Sciences Po, 1995), 243-61; and Nonna Mayer, *Ces Français qui votent FN* (Paris: Flammarion, 1999).

4. Guy Michelat, Michel Simon, *Classe, religion et comportement politique* (Paris: Presses de Sciences Po/Éditions sociales, 1977).

of their electoral power due to dwindling rates of religious observance. As for atheists, they remain a core voting block of the left. In short, as Claude Dargent's title pithily concludes: "La religion, encore et toujours" ("Still, and Always, Religion").¹

Additional social characteristics seem to be emerging to explain voting patterns. In 2007, for example, a greater polarization of votes by age group was observed than in 1981, despite the fact that this latter election was thought to be exemplary of the "Mitterrand generation".² Since the 1980s, it has become apparent that education levels too must be taken into account when investigating voting choices. Finally, it has recently been proven that the "patrimonial [or asset] effect" discovered during the 1970s continues to make itself heard in today's voting booths.³

These different social characteristics affecting voting behavior, whether they are evolving, enduring, or just now emerging, seem even more paradoxical if we consider that whole swathes of research assert that France, like other Western countries, has shifted from an era of "cleavage politics" to one of "issue voting",⁴ where voting choices primarily express views on current issues as well as voters' perceptions of the competing candidates' personalities.⁵ The persistence of such sociological variables thus contradicts a number of works describing the current electoral situation: an increasingly fickle rate of voter turnout, contingent on the election's perceived intensity,⁶ longer and longer periods of voter indecision,⁷ or even the fact that voters now navigate in a "space of multiple voting possibilities", whereas they previously used to remain loyal to a single party.⁸ But despite this rise in short-term, contextual factors influencing electoral decision, voting motivations and party alignments are far from being arbitrary, and are associated with sociological characteristics. To some extent, the discoveries made in the seminal studies by Columbia University and the University of Michigan still hold.

Can this paradox associated with sociological cleavages be explained by the theory of a "new politics"?⁹ According to Ronald Inglehart and his supporters, until the 1970s, Western soci-

1. Claude Dargent, "La religion, encore et toujours", in Bruno Cautrès, Nonna Mayer (eds), *Le nouveau désordre électoral: les leçons du 21 avril 2002* (Paris: Presses de Sciences Po, 2004), 161-82.

2. Vincent Tiberj, "L'impact politique du renouvellement générationnel: une comparaison franco-américaine", *Agora débats jeunesse*, 51, 2009, 125-41.

3. Viviane Le Hay, Mariette Sineau, "Effet patrimoine: 30 ans après, le retour?", *Revue française de science politique*, 60(5), 2010, 869-900.

4. Mark Franklin, Tom Mackie, Henry Valen (eds), *Electoral Change. Response to Evolving Social and Attitudinal Structures in Western Countries* (Cambridge: Cambridge University Press, 1992).

5. Martin Wattenberg, *The Rise of Candidate-Centered Politics. Presidential Elections of the 1980s* (Cambridge: Harvard University Press, 1991).

6. In particular, see Céline Braconnier, Jean-Yves Dormagen, *La démocratie de l'abstention. Aux origines de la démobilisation en milieu populaire* (Paris: Gallimard, 2007).

7. Bruno Cautrès, Anne Jadot, "L'(in)décision électorale et la temporalité du vote. Le moment du choix pour le premier tour de l'élection présidentielle 2007", *Revue française de science politique*, 57(3-4), 2007, 293-314.

8. Vincent Tiberj, "Le système partisan comme espace des possibles: le tournant cognitiviste dans l'étude du lien partisan", in Florence Haegel (ed.), *Partis politiques et système partisan en France* (Paris: Presses de Sciences Po, 2007), 287-319.

9. Ronald Inglehart, *The Silent Revolution. Changing Values and Political Styles among Western Publics* (Princeton: Princeton University Press, 1977); and *Culture Shift in Advanced Industrial Society* (Princeton: Princeton University Press, 1990); Russell Dalton, Scott Flanagan, Paul Allen Beck, *Electoral Change in Advanced Industrial Democracies. Realignment or Dealignment?* (Princeton: Princeton University Press, 1984); Terry Nichols Clark, "Assessing the new political culture by comparing cities around the world", in Terry Nichols Clark, Vincent Hoffmann-Martinet (eds), *The New Political Culture* (Boulder: Westview, 1998), 93-194; and also Hanspeter Kriesi, Edgar Grande, Romain Lachat, Martin Dolezal, Simon Bornschier, Timotheos Frey, *West European Politics in the Age of Globalization* (Cambridge: Cambridge University Press, 2008); Simon Bornschier, *Cleavage*

eties were politically characterized by the issue of wealth inequality and distribution, with a right that favored laissez-faire economics, and a left which advocated redistribution. With the development of the welfare state, these same societies eventually attained an optimal level of equality, auspicious for the appearance of a “new politics” based on “post-materialist” concerns, in particular on issues such as sexual freedom, authority, multiculturalism and diversity. In their early investigations, Gérard Grunberg and Étienne Schweisguth did not rely on this global explanation, but they did observe a similar phenomenon in the 1978 Cevipof study: educated “middle-class” voters were characterized by a greater level of “cultural liberalism”, which consequently attracted them to the left.¹ These researchers have subsequently shown that this second type of liberalism encompasses different attitudes (xenophobia, authoritarianism, universalism, etc.) and that its fundamental values and issues are largely different from those that traditionally structured the left/right divide.²

According to advocates of the new politics, we have switched electoral models, moving from an arrangement where socio-economic cleavages dominated and consequently structured political competition, to a situation where cultural oppositions have become the key structuring factor of partisan systems.³ This shift from an “old” to a “new” politics would thus theoretically mark the end of the privileged relationship between the left and the working class.

And yet, this explanation is not entirely satisfying. Granted, it is has the merit of putting voters’ values at the center of the discussion, but it is not sufficient to explain why only some sociological logics of voting have been affected and not others. For example, why do self-employed workers and farmers continue to support the right? Why do atheists, as well as practicing Catholics, largely persist in their respective electoral choices?

Most of all, this core notion of one ideological cleavage replacing another is difficult to support with evidence. First of all, so-called “materialist” issues are still consistently ranked among voters’ top concerns. Since 1999, the barometer established by the *Commission nationale consultative des droits de l’Homme* [French National Consultative Commission on Human Rights] has asked individuals to identify the main problems facing French society. Unemployment is frequently ranked number one, only unseated in 2002 by the issue of law and order – which is also considered by Ronald Inglehart to be a materialist concern. Likewise, poverty and financial crises are often ranked among French voters’ top fears. The issues around which the “old politics” was centered have not disappeared, therefore – quite to the contrary.

Moreover, partisans of the “new politics” contend that this change must be accompanied by a complete reshaping of the existing political offer. Initially, their predictions concerned the rise of ecological parties,⁴ advocates of the “new left”. Subsequently, they suggested that the re-emergence of extreme right-wing parties stemmed from this same logic and embodied a

Politics and the Popular Right. The New Cultural Conflict in Western Europe (Philadelphia: Temple University Press, 2010).

1. Gérard Grunberg, Étienne Schweisguth, “Le virage à gauche des couches moyennes salariées”, in Georges Lavau, Gérard Grunberg, Nonna Mayer (eds), *L’univers politique des classes moyennes* (Paris: Presses de Sciences Po, 1983), 351-71.

2. Gérard Grunberg, Étienne Schweisguth, “Libéralisme culturel, libéralisme économique”, in *Cevipof, L’électeur français en questions* (Paris: Presses de Sciences Po, 1990), 45-70.

3. See Sally Marthaler, “New politics for old? Value change and the voter-party relationship in France”, *French Politics*, 6, 2008, 187-213.

4. Ronald Inglehart, “Value change in industrial societies”, *American Political Science Review*, 81(4), 1987, 1289-303.

“silent counter-revolution”.¹ As Peter Achterberg and Dick Houtman have argued, this hypothesis would thus leave us in a quadripolar partisan system with “two lefts and two rights”,² where the new left- and right-wing parties would be in a position to supplant the old left- and right-wing parties, represented respectively by the social democrats and the conservatives.

Nevertheless, things in France are not quite so simple. First of all, researchers have not identified any sort of four-bloc system,³ but rather a tripartite political space⁴ (left, right, extreme right) and this assessment has also been challenged.⁵ Secondly, the FN very much embodies the culturally based “new right”. This party achieved undeniable successes, among which was Jean-Marie Le Pen’s qualification for the second round in 2002’s presidential election. But looking at the past three decades, we are forced to conclude that the dominant political parties are still those said to belong to the “old politics”. The majority of second-round elections in France today, be they local, departmental, legislative or presidential, are still fought between socialist candidates and RPR (subsequently UMP) candidates. It is possible that Marine Le Pen will upset this hierarchy, but for the moment, the players of the “old politics” are still putting up a fight.

Research hypotheses and objectives

The main objective of this article is to contribute to the elaboration of an explanatory framework that can simultaneously account for the longevity and the transformations observed in sociological logics of voting when faced with a relatively stable ensemble of political offers since the mid-1980s.

I should like to make the following preliminary remarks:

First of all, a relationship exists between the social characteristics of individuals and their votes, insofar as this connection is expressed by values, opinions and norms. This article does not subscribe to rational choice theory and the paradigm of self-interest (even if, behind values, there may lurk interests – and vice-versa).

Secondly, voting logic stems from the encounter between an electorate and a partisan system. The way in which political competition is organized (especially cleavages and alliances between organizations), the issues on which the different candidates attack each other and the various events which can occur during a campaign all influence ballot box results.⁶ Supply

1. Herbert Kitschelt, *The Radical Right in Western Europe. A Comparative Analysis* (Ann Arbor: University of Michigan Press, 1995); Piero Ignazi, “The silent counter-revolution: hypotheses on the emergence of extreme right-wing parties in Europe”, *European Journal of Political Research*, 22(1), 1992, 3-34.

2. Peter Achterberg, Dick Houtman, “Two lefts and two rights. Class voting and cultural voting in the Netherlands, 2002”, *Sociologie*, 1(1), 2010, 61-76; Dick Houtman, Peter Achterberg, Anton Derks, *Farewell to the Leftist Working Class* (New Brunswick: Transaction Publishers, 2008).

3. Gérard Grunberg, Étienne Schweisguth, “French political space: two, three or four blocs?”, *French Politics*, 1, 2003, 331-47. In addition, such a four-part division would not have mirrored the cleavage lines proposed by the new politics.

4. Gérard Grunberg, Étienne Schweisguth, “La tripartition de l'espace politique”, in Pascal Perrineau, Colette Ysmal (eds), *Le vote de tous les refus* (Paris: Presses de Sciences Po, 2002), 341-62.

5. On this debate, see: Robert Andersen, Jocelyn Evans, “Values, cleavages and party choice in France, 1988-1995”, *French Politics*, 1, 2003, 83-114; Gérard Grunberg, Étienne Schweisguth, “Reply to Andersen and Evans, *Values, Cleavages and Party Choice in France, 1988-1995*”, *French Politics*, 1, 2003, 115-117; Robert Andersen, Jocelyn Evans, “Reply. Framing change in political bloc development: a rejoinder to Grunberg and Schweisguth”, *French Politics*, 1, 2003, 349-54.

6. On this subject, we refer to both sides of the explanation Pierre Martin offers concerning voting choices (in *Comprendre les évolutions électorales*), accounting for both the importance of cleavages (Pierre Martin, “Com-

and demand are therefore not congruent: their configuration is the fruit of strategy, adaptation and choice, on the part of voters as well as candidates.

Thirdly, while the hypotheses of the new politics are not sufficient, they do offer a fertile starting point for discussion, in particular due to the question of socio-economic and cultural values. First, we will look at studies examining these two axes of value in France, and second, we will discuss and develop the work begun by Achterberg and Houtman.¹

For these two authors, class voting has been “buried alive”. That is to say, they believe that the core values behind class voting – namely, socio-economic attitudes – have persisted among the blue-collar electorate. But because of the interaction between the available political choices and the silent revolution, these values have lost their saliency in contrast to cultural values (and, in the case of the working-class, to largely conservative values). The quadripolar partisan system hypothesized by these authors emerges in tandem with this politicization of values.

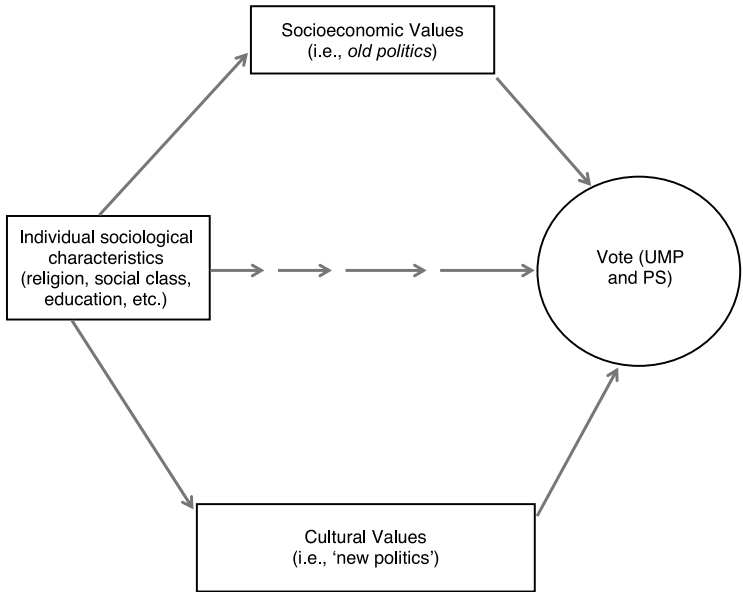
This article aims to extend this analysis in three different ways. First of all, geographically, as we are no longer dealing with the Netherlands, as in Achterberg and Houtman’s study, but with France. Secondly, I have expanded the scope of pertinent sociological characteristics, no longer limited to class but also taking into account religion, gender, education level and birth cohort; I will demonstrate why each of these factors influences voting choices. And finally, I have extended the study in time by not only studying one election, but the last four French presidential elections (or a period of almost twenty years). In order to do this, I used the four presidential studies conducted by Cevipof. By incorporating a broader time period, I hope to expand and deepen the foundational studies elaborated in France on the issue of socio-economic values and cultural values, in particular those conducted by Gérard Grunberg and Étienne Schweisguth.

In this article, I will show how the transformation of the French electorate may be better understood not only through the lens of the “new politics”, but also via a two-axis politics structured around socio-economic *and* cultural values. It will thus be a question of ascertaining how these aspects are related to individual social positioning, but also of identifying their translation to electoral orientation, in particular with regard to the two major French political parties (the PS and the UMP, successor to the RPR). In order to accomplish this, our article will follow the outline found below, inspired by the work of Achterberg and Houtman:

ment analyser les changements dans les systèmes partisans d'Europe occidentale depuis 1945?”, *Revue internationale de politique comparée*, 14(2), 2007, 263-80; Stefano Bartolini, “La formation des clivages”, *Revue internationale de politique comparée*, 12(1), 2005, 9-34) and the importance of campaigns (Henry Brady, Richard Johnston (eds), *Capturing Campaign Effects* (Ann Arbor: The University of Michigan Press, 2006); Richard Lau, David Redlawsk, *How Voters Decide. Information Processing During Electoral Campaigns* (Cambridge: Cambridge University Press, 2006)).

1. P. Achterberg, D. Houtman, “Two lefts and two rights”.

Figure 1. Votes, values and social characteristics: a schematic representation



This article thus proposes to verify four hypotheses. Firstly, we postulate that the sociological logics behind socio-economical and cultural values are relatively stable over time. Essentially, individual social characteristics continue to correspond to a greater or lesser degree of cultural liberalism or economic liberalism. Consequently, we believe that not only has the socio-economic cleavage survived “the silent revolution” – but that it will in fact continue to influence politics in the future.

Secondly and accordingly, the persistence and transformations observed in sociological logics of voting can largely be explained by the growing politicization of values steered by the evolution of the main political parties. We have thus shifted from a model of political competition based on one axis (socio-economic values) to a competition now founded on two competing axes.

Thirdly, this politicization of the two value axes is not the sole purview of the *new* left- and right-wing parties; it has also been integrated into the competition between the PS and the RPR/UMP. This is where I depart from Achterberg and Houtman’s conclusions and also from the work of several of my French colleagues.¹ I put forth the theory that the two major parties have now incorporated this two-axis logic by positioning themselves at two antithetical poles: one is focused on social issues and culturally liberal, while the other is economically liberal and culturally conservative, which would explain the persistence of a “French-style bipartisanship”² rather than a Dutch-style four-bloc model, even despite the presence – especially during the first rounds of elections – of the far right and the tripartite political

1. For example, Jean Chiche *et al.* believe that the cultural axis only establishes a distinction between the FN and the remaining French political parties; once the FN is eliminated as an electoral choice, a more traditional choice structure is re-established: Jean Chiche, Brigitte Le Roux, Pascal Perrineau, Henry Rouanet, “L’espace politique des électeurs français à la fin des années 1990”, *Revue française de science politique*, 50(3), 2000, 463-87.
2. Gérard Grunberg, Florence Haegel, *La France vers le bipartisme? La présidentialisation du PS et de l’UMP* (Paris: Presses de Sciences Po, 2007).

structure it engenders. I will touch only tangentially upon the motivations behind voting for the FN and the Verts (Green Party), functional stand-ins for the new right and new left, in particular because existing studies have already revealed how cultural values have fueled such choices.¹ On the other hand, the impact of these values on traditional parties has received much less scrutiny or has been (wrongly) considered as marginal.

Fourthly, the politicization of values by parties does not have the same impact on every social group. Some groups, notably blue-collar workers and, at the other end of the spectrum, executives and intellectual professionals, find themselves in a situation of a “clash of values”, to use Paul Sniderman’s expression:² they are forced to arbitrate between their preferences when it comes time to vote. Other groups, however, remain unaffected by two-axis politics; these include practicing Catholics, atheists and self-employed individuals. Additionally, this politicization allows other sociological logics of voting to emerge, most notably with regard to birth cohort and education level.

This article demonstrates these findings in four stages: 1) an overview of the sociological logics behind voting and their transformations over time; 2) a definition of how socio-economic and cultural values were measured based on four relatively diverse studies; 3) a demonstration of the permanence of relationships between individual social characteristics and values during the past twenty years; and 4) an analysis of the way in which values and votes have evolved over time, showing how competition between the PS and the RPR/UMP now subscribes to this politicization of the two value axes.

Trends in the sociological logics of voting: a preliminary synthesis

How have votes for the left and for the right evolved in terms of sociological logics? I initially analyzed the second rounds of the 1988, 1995 and 2007 presidential elections, which is to say three traditional left/right political duels. 2002 was an exception, as it was a right/extreme right duel, which was in fact transformed into a “referendum for or against Jean-Marie Le Pen”, to use the contemporary expression. Nonetheless, if we turn to a pre-electoral poll showing how people would have voted in the case of a Chirac/Jospin scenario, we do have at our disposition several clues regarding sociological logics of voting in 2002. We will thus refer to this study for illustrative purposes.³

It would have been difficult to not include class among our social variables (measured by the current or past occupation of the person surveyed), as well as religion, the latter variable used as categorized in existing literature in France: Catholics, sub-divided by their degree of observance, “other religions”, and “no religion”. We thus had the two traditional “heavy variables” covered. We have also included education levels and birth cohorts. These variables were justified by the fact that they represent the two pillars on which the silent

1. Readers seeking more information on this topic should turn to Annex 3.

2. Paul Sniderman, *The Clash of Rights. Liberty, Equality and Legitimacy in Pluralist Democracy* (Yale: Yale University Press, 1996).

3. All the studies used in this article are now available on the *Centre de données sociopolitiques de Sciences Po* (CDSP – Center for Socio-Political Data) website. There, readers can find more information regarding the questionnaires and with what frequency questions were asked:

<http://cdsp.sciences-po.fr/enquetes.php?&idRubrique=enquetesFR&lang=FR>.

revolution is thought to be grounded.¹ The birth cohort variable can also be justified by the fact that it allows our analysis to take into account the effect of time, in particular the generational renewal that took place during 1988-2007. Let us not forget that 33% of voters in 2007 had not been old enough to vote in 1988.² We have also chosen to take gender into account, in particular because this variable is all too often overlooked in studies on voting.

Three separate reasons led me to consider second-round voting during three of the last four presidential elections in France. First of all, these second rounds offered a simple choice to voters between a left-wing candidate and a right-wing candidate. Secondly, the decisive nature of such situations simplifies voting logic: no strategic voting, whether tactically (to make a particular candidate lose),³ or “votes of influence”.⁴ Because these choices were binary, they were as restrictive as possible: they forced voters to sift through conflicting reasons that might have led them to lean one way or another. In cases where voters experienced ambivalence,⁵ with values and concerns that might sway them towards the right (for instance, concerns about safety and security) and others orienting them towards the left (for example, a desire for equality), the choice structure forced them to prioritize their values, silencing some while expressing others.

I have reworked the available data in order to make it easier to understand. Every comparison made over time implies changes in level: between Nicolas Sarkozy’s victory and François Mitterrand’s, the percentage of left-wing votes varied considerably (all the more when the “bandwagon”⁶ effect is accounted for). In other words, two pieces of information are available in the raw data: the level of the left-wing vote and the polarization of different groups around this vote. For ease of interpretation, I decided to focus on the social polarization of the left-wing vote by calculating the probability ratios of voting for the left. In this configuration, a value of 1 signifies that the social group in question voted for the left in the same proportion as the overall sample population; a value less than 1 indicates that the group was less likely to vote for the left than the sample population; and a value greater than 1 implies that the group was more likely to vote for the left than the sample population.

1. In particular, see R. Inglehart, *The Silent Revolution*, or Russell Dalton, *Citizen Politics. Public Opinion and Political Parties in Advanced Industrial Democracies* (London: Chatham House, 1988).

2. This choice of variables can also be explained by the impact of birth cohorts on the cultural dimension. Contrary to popular belief, cultural conservatism is not a question of age in terms of the life cycle, but rather of what point in time the individual was born and then socialized (in particular, see V. Tiberj, “L’impact politique du renouvellement générationnel”).

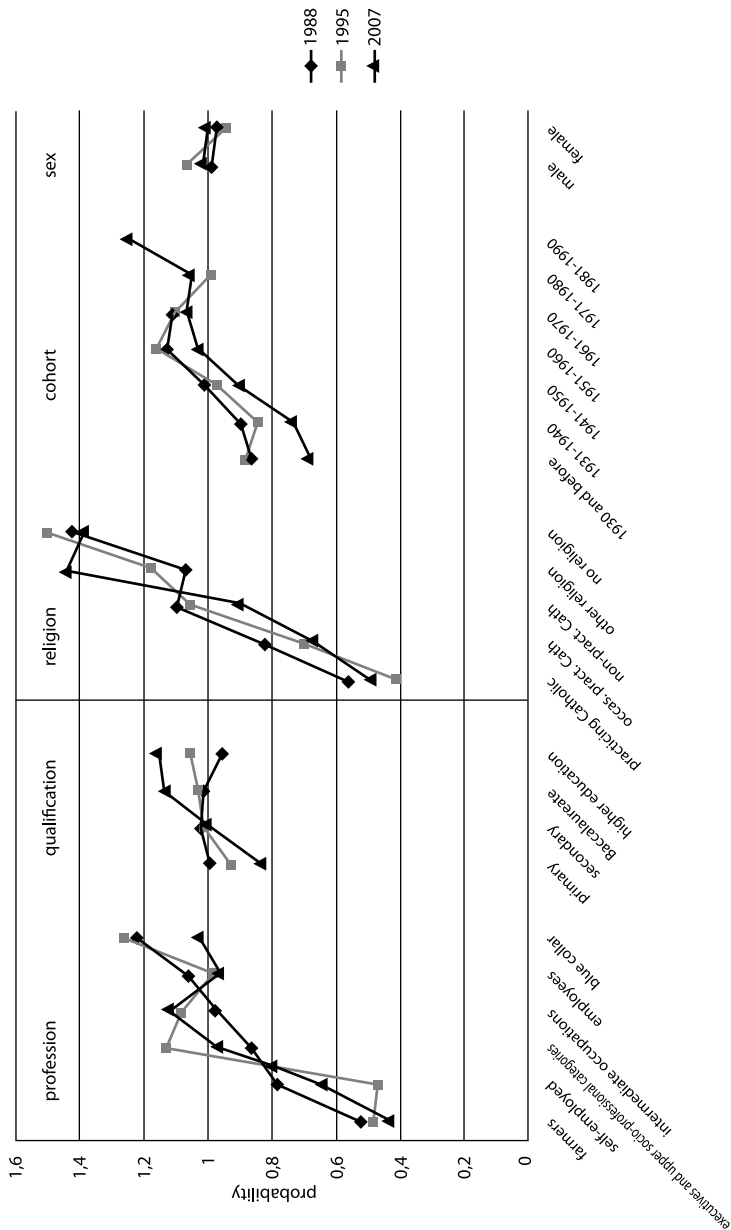
3. André Blais, Richard Nadeau, “Measuring strategic voting: a two-step procedure”, *Electoral Studies*, 15(1), 1996, 39-52.

4. Vincent Tiberj, “Les votes trotskystes: votes extrêmes ou vote de gauche? Une explication par les systèmes de valeurs et leur recomposition”, in Dominique Reynié (ed.), *L’extrême gauche, moribonde ou renaissante* (Paris: PUF, 2007), 129-54.

5. John Zaller, *The Nature and Origins of Mass Opinion* (Cambridge: Cambridge University Press, 1992).

6. François Mitterrand won with a wide margin when pitted against Jacques Chirac (54% of votes cast). However, a little over 60% of the individuals surveyed by the Cevipof study in 1988 said they had voted for Mitterrand.

Figure 2. Social cleavages: probability rates of voting for the left



Although we can certainly see changes here, we can also observe the persistence of several consistent sociological logics of voting. In terms of stability, a French “gender gap” is not in the process of being established, at least not at the global electorate level (unlike in the United States, for example). Differences between men and women were found to be insignificant, regardless of the election examined. Religion, however, continues to be an element

of differentiation and, on the whole, has been expressed in a similar fashion from 1988 to 2007. As a consequence, a strong right-wing alignment persists for practicing Catholics (regular or occasional) as well as an inverse left-wing alignment for atheists. The Catholic group is two times less likely to vote for the left than the overall sample population (probability ratios fluctuated between 0.42 in 1995 and 0.56 in 1988). On the other hand, individuals designated as “no religion” have remained loyal followers of left-wing candidates: they are 1.4 to 1.5 times more likely to vote for the left than the overall sample population.¹

Despite these consistent voting patterns, several important shifts also appear in the data. In particular, the class vote is altered.² On the whole, the sociopolitical differences associated with this variable have decreased over time. But this global decrease masks several different phenomena of political reconfiguration. The self-employed and farmers are still largely aligned with the right (the former were 1.25 times more likely to vote for the right than the sample population in 1988 and 2 times more likely in 1995, whereas the latter were twice as likely in both elections). The social roots of the right are hence still firmly entrenched. The relationship between left-wing government and the working-class vote has significantly deteriorated, however. White-collar workers were already no more likely to vote for the left in 1988 than the general population. 1995 seems to be the last presidential election where blue-collar workers were more likely to vote for the left than the general population (1.2 times more likely in 1988 and 1995, versus 1.03 in 2007). When we consider that these two social groups represented a hefty 48% of the electorate in 2007, we begin to see the numerical impact of this erosion on the country’s voting patterns. The transformation of the left’s social base is even more remarkable when we analyze the behavior of mid-level or higher occupations. Hence, in 2007 blue-collar workers voted for the left in a similar proportion to executives and intellectual professionals, but in an inferior proportion to voters engaged in intermediate occupations.

If Lionel Jospin had qualified for the second round on 21 April 2002, voting patterns in the bastions of the right would have scarcely changed from 1995, in terms of religion and occupation. Farmers, the self-employed and practicing Catholics would have rejected the left in numbers similar to the previous election (with the respective odds ratios of 0.5 [farmers], 0.6 [self-employed], 0.5 [regularly practicing Catholics] and 0.7 [occasionally practicing Catholics]). However, the erosion of the left-wing vote among blue- and white-collar workers would have been confirmed (especially for blue-collar workers, with an odds ratio of 1.1 instead of 1.2 only seven years previously).

The 2007 election also saw the pronounced rise of two other socio-demographic variables: education level and birth cohort. It is difficult to identify education level as a structuring variable in the 1988 and 1995 elections; much like gender, it did not provoke significant variations during this time period. A run-off between Chirac and Jospin in 2002 would not

1. A specific trend is observable with regard to the “other religions” group: its progressive shift towards the left is attributable to its changing internal composition, in particular due to a growing number of Muslims in France. Whereas Muslims represented only 0.5% of the 1988 survey population, they represented 3.5% of the respondents in 2007. The Muslim vote was different from that of other minority religious groups as it was a vote against Sarkozy. Here emerges an ethnic rather than religious voting cleavage (see Sylvain Brouard, Vincent Tiberj, “L'incorporation politique ‘à la française’: modèles explicatifs des alignements politiques des Français d'origine maghrébine, africaine et turque”, *Migrations-société*, 19(111), 2007, 127-48).

2. I have chosen to preserve class in its “stratification routine”, the idea here being to measure how groups change over time. I could have considered another method of classification but this choice will be explained later in the article.

have changed the situation, compared to 1995.¹ In 2007, however, this was no longer the case – voters with only a primary education or no qualifications heavily favored the right, whereas those with a high school or college diploma largely aligned themselves with the left.

Using birth cohorts as a variable is always a complicated matter, as they also have possible correlations with life-cycle effects. If we leave aside the new incomers of 1995 and 2007, however, the gap between the different birth cohorts of legal voting age in 1988 has only increased over time; consequently, no ageing phenomenon is observed. As a reference point, let us take individuals born before 1930. Compared to this group, voters born in the 1960s were 1.2 times more likely to support Mitterrand in 1988. In 2007, they were 1.5 times more likely to vote for Ségolène Royal than her opponent. The increase in generational cleavage follows this same pattern if we compare the birth cohort of the 1930s with that of the 1960s. Lastly, first-time voters in 2007 stand out from all other birth cohorts by their strong alignment with the left.²

We can thus observe several simultaneous phenomena of dealignment, continued alignment and sociological re-composition. This observation supposes a shift in voting order as expressed by Pierre Martin. Nevertheless, for the time being I have assumed that the electorate remained constant over time. This reasoning is misleading, however: the electorate changes, and this is an essential dimension of the political climate.

Hence, the erosion of the left's traditional working-class base hurt it in terms of votes, since this group represents one-fifth of the vote-casting electorate. And yet, during this same period of time, the right also lost votes, especially because some of the groups supporting the right have declined numerically over the years. In particular, the number of Catholics (regardless of degree of observance) and farmers – stable in their alignment with the right – has decreased. Regularly practicing Catholics accounted for 14.5% of voters in 1988. Even if their party loyalty has been constant, they only represent 7% of the electorate in 2007. In addition, atheists are four times more numerous today than the Catholic hardcore (30% versus 7%). In a similar fashion, those with lower levels of education largely voted for Sarkozy in 2007, although they now only represent 29% of the population. If this group had aligned itself with the right starting in 1988, its impact would have been considerably greater, as it accounted for 39% of the electorate at that time. Those possessing no qualifications surpassed high-school graduates by at least 14 percentage points when Mitterrand was re-elected; they now account for 5% of the electorate. Finally, the ageing of the French population is a demographic factor that has all too often been attributed as being favorable for the right. And yet, 33% of 2007's voters were not even of voting age in 1988: this third of ballot-casters supported the left. Moreover, the birth cohorts most favorable to the right (voters born before 1930 or during 1931-40) represented approximately 27.5% and 13.5% of the electorate in 1988. In 2007, these cohorts only accounted for 6.5% and 11% of the vote respectively.

The demographic shifts that have occurred since 1988 thus display contrasting effects that are both advantageous and disadvantageous for the two political camps. Some of these changes seem to favor the right (inroads made into the working-class vote), while others appear to benefit the left (generational renewal, secularization, increases in education levels).

1. The odds ratios would have been exactly the same as in 1995, to one hundredth or two hundredths of a percentage point.

2. An analysis of voting intentions back in 2002 suggests that alignments by cohort would have been similar to those found in 1995.

At the same time, traditional structures remain – the religious cleavage, for instance, or the alignment of certain social groups – which are then added on to these new voting patterns.

It is now a question of showing how both these changing and durable elements can be explained by a two-axis political system. In order to do so, it is first appropriate to relate individual social characteristics to values, and in turn to analyze the relationship between values and voting preferences. Nevertheless, before going any further, we need to resolve a particularly thorny empirical issue: how to measure the socio-economic and cultural values of individuals while maintaining consistent and comparable measurements over time?

Measuring socio-economic and cultural values

The goal of this article is thus to better understand the changes, over time, to the relationship between sociological characteristics, socio-economic and cultural values, and voting patterns during the last four French presidential elections. Here we are confronted with a particularly complex empirical and methodological challenge: designing the most precise and robust measures possible for both axiological dimensions while also allowing for comparability over time. In the existing French research on the subject, two scenarios are generally presented. Either the authors use advanced multivariate statistics (principal component analysis, factor analysis and multiple correspondence analysis), but then generally focus on a single study and thus only on one election; or the authors emphasize comparability over time, thus often ending up with highly fragile value axis measurements. The work done by Jean Chiche *et al.* illustrates the first scenario. By taking into account 20 active variables, grouped by rubric (ethnocentrism, authoritarianism, the economy, “supra-nationality”, etc.), their multiple correspondence analysis allows for a keen understanding of the cultural axis (dubbed “open/closed”) and of the socio-economic axis. However, this study only addresses the post-legislative survey of 1997, and consequently, despite what the authors may imply, is inconclusive regarding the new primacy of the “open/closed” axis with regard to the more traditional aspects of the left/right voting divide.¹ The authors did not proceed to any comparisons over time, as this would have required the same set of 20 questions, which had not occurred before or after. This is particularly unfortunate, as working from the 1988 survey, Chiche developed a factor analysis whose first axis closely resembled a “cultural axis”, this factor already prevailing over the socio-economic axis.²

The existing research that, on the contrary, favors diachronic comparison tends to rely on a smaller set of questions and thus produce more fragile results. This is the case, for example, with the analysis of Trotskyist votes that I developed³ and which focused on the (too) few questions on values in the electoral polls of 1988, 1995 and 2002: opinions regarding profit and privatization, and opinions on the death penalty, the number of immigrants and school

1. See J. Chiche *et al.*, “L'espace politique des électeurs français à la fin des années 1990”, 470, especially the following passage: “The order of the axes is interesting. In 1997, the most important factors structuring the internal oppositions of the French electorate all revolved around the ‘other’ (immigrants, foreigners, Europe, the world). It is only later that the more traditional values associated with ‘social issues’ and ‘the economy’ begin to appear, values which have structured French political discourse for decades by implying a left-right opposition”.

2. Jean Chiche, “L'univers idéologique et politique des Français: une exploration par l'analyse factorielle”, in *Cevipof, L'électeur français en question*, 219-28.

3. V. Tiberj, “Les votes trotskystes”. A preprint version can also be found at the following address: <http://cee.sciences-po.fr/images/stories/e-prints_Tiberj_04-2010_2.pdf>.

discipline. This small number of questions is problematic. Reducing the socio-economic cleavage to a few questions – especially *these* two questions – is obviously likely to lead to a flawed, or at least highly biased, perception of the issue. In 2007, Étienne Schweisguth was confronted with the same problem of non-repeating question sets.¹ He resolved this issue by including more poll questions, whenever they were repeated at least twice, but remaining at the descriptive level. He worked in this way on the changes affecting the French electorate, globally but also according to the types of vote. The main result, according to Schweisguth, is the rise in influence of the cultural factor with regard to voting choices, in particular during the second round; nevertheless, this result could not be fully verified by multivariate methods.

The empirical overview thus presented, it is now a matter of finding a compromise allowing for two different objectives to be met: comparability over time and robust empirical measurements of the socio-economic and cultural dimensions. In order to do this, two assumptions (one empirical and one statistical) guided my methodological approach. First assumption: there exist two distinct dimensions of socio-economic and cultural values in French society, at least since 1988. We consequently do not have to prove their existence: for this purpose, we will rely on previous studies. Over the years, different authors have given different names to the cultural dimension, but they have all addressed the same phenomenon. For example, Grunberg and Schweisguth wrote about economic liberalism and cultural liberalism² when discussing the 1988 poll, the latter dimension being measured on the basis of questions about mores (homosexuality, the role of women), questions concerning authoritarianism (death penalty, social hierarchy, discipline in schools) and questions regarding racism (immigration, the construction of mosques, anti-Semitism).³ When analyzing the 1995 poll, the same authors nuanced their definition of cultural liberalism by developing oppositions such as universalism/anti-universalism, sexual liberalism/anti-sexual liberalism, but nevertheless admitted their strong relationship.⁴ Finally, we find the “open/closed” cleavage posited by Chiche *et al.* with regard to the 1997 poll. We can thus presume that, in each of these electoral polls, both of these value dimensions are present as latent variables (i.e., not measured directly), which can be reconstituted thanks to the questions posed in these surveys.

Second assumption: social science measurement theory has taught us that the quality of any measure improves as an increasing number of questions are called upon to determine it. A single question may produce a certain rate of error, but when indicators are multiplied, this error is reduced and we are able to refine our approximation of the measure in question. Basing one’s analysis on only the narrow sets present in the four presidential polls is a weak approach. It is thus appropriate to have access to the greatest possible number of “tests”, or poll questions, in order to measure these dimensions. In this case, the problem is having access to question sets that are as comparable as possible. We were able to resolve this problem by examining all the surveys conducted by Cevipof between 1988 and 2007 (about fourteen polls) and selecting only the questions that were repeated at least twice. This criterion

1. Étienne Schweisguth, “Le trompe-l’œil de la droitisation”, *Revue française de science politique*, 57(3), 2007, 393-410.

2. G. Grunberg, É. Schweisguth, “Libéralisme culturel, libéralisme économique”, 45-70.

3. From the same poll, Jean Chiche obtained similar results (Chiche, “L’univers idéologique et politique des Français”).

4. Gérard Grunberg, Étienne Schweisguth, “Les recompositions idéologiques”, in D. Boy, N. Mayer (eds), *L’électeur à ses raisons*, 139-78.

was adopted for two important reasons: first, this was the rule implemented by James Stimson¹ for including a poll question in his studies on policy mood; secondly, given the changes in teams and surveys over the years at Cevipof, a question that was repeated several times illustrated a high level of consensus regarding its quality and value for scientific research.

I thus adopted a research strategy based on the notion of latent variables. During each election, I have theorized that voters are distinguished by their positions on two axes, those of socio-economic preferences and cultural preferences. Information can be gleaned regarding these positions from the different questions asked in the polls. Thus, for example, in 1988 with regard to the socio-economic axis, we have access to several indicators in addition to questions relating to profit or privatization: public opinion on nationalizations, on the abrogation of the right to unionize and to strike, on the trust awarded to unions, as well as on the degree of control that the state should exert over corporations. The list of the questions used for each dimension and for each election year is contained in Annex 1 of this article.

It was necessary to be particularly rigorous with regard to the empirical translation of these dimensions, as they are not comprised of the same indicators. As such, the analysis was conducted in the following manner. First, I employed statistical techniques that allowed variables to be more or less correlated with these latent dimensions,² rather than having recourse to traditional attitude scales.³ Dimension assessment took place separately: I used different principal component analysis to evaluate the socio-economic and cultural dimensions for each presidential election. Then I employed two different factor assessment techniques to test their robustness: factor analysis and decoupled correspondence analysis.⁴ Consequently, the variables used in the analysis are considered to be continuous (as in the development of an attitude scale or a correlation analysis). In this regard, I am reproducing an approach that is traditional in the field of international political science.⁵ Nevertheless, I could have considered other methods, such as multiple correspondence analysis, which treats each variable as a dummy variable. Finally, I confirmed that the dimensions obtained did indeed “mean the same thing” by testing correlations between the sets of questions asked during the four presidential elections and the factors obtained. The entirety of these operations and their results are available in Annex 1.

1. James Stimson, “Public policy mood: a personal narrative”, *The Political Methodologist*, 12(1), 2004, 9-13.

2. It is to be expected that certain questions will be more or less connected to the latent dimension being evaluated. Defending the right to strike, for example, is probably not a sufficient condition for a voter to be characterized as “left-wing” (in fact, 84% of persons surveyed considered that suppressing this right would be “fairly serious” or “very serious” in 1988). On the other hand, demanding greater state control over corporations is a position more closely aligned with the ideology espoused by the left (and in this case, only 54% of people answered positively).

3. In traditional attitude scales, it is essentially a question of adding individual scores on several questions. As soon as two questions contain the same number of modalities (4, for example, for a question which offers the following response format: “completely agree”, “somewhat agree”, “somewhat disagree”, “completely disagree”), they equally contribute to the individual's score. For example, defending the right to strike would have the same weight as an individual's position on nationalization.

4. Flora Chanvriil, “L'analyse des correspondances dédoublée pour pallier à un effet Guttman en analyse géométrique des données: une application à l'European Social Survey”, working documents of ESS France, 2008, available online at the following address: <<http://ess.sciencespo.com/L-analyse-des-correspondances.html>>.

5. For example, this is the case of the aforementioned *West European Politics in the Age of Globalization* (in particular, see the methodological annex, 353-9). We also find this type of approach in Achterberg and Houtman's “Why do so many people vote ‘unnaturally’? A cultural explanation for voting behavior” (*European Journal of Political Research*, 45(1), 2006, 75-92). We can also cite Andrija Henjak, “Political cleavages and socio-economic context: how welfare regimes and historical divisions shape political cleavages”, *West European Politics*, 33(3), 2010, 474-504.

In the end, I obtained eight factors: four relating to the cultural dimension and four pertaining to the socio-economic dimension, two for each of the last four presidential elections. In view of the tests conducted, I have confidence in their robustness and comparability. It is thus possible to classify voters from one given survey according to their respective positions on these two axes, in terms of a mean point established for the sample size.

The temporal comparison between the factors could, however, have remained needlessly complex, as two issues persisted: the mean of a given factor and the spread around this mean. Here, we are not so concerned with the average evolution over time – determining if the French are more or less liberal, for instance – as with understanding if the polarization on these two axes obeys the same logic, or not, over time. It has already been thoroughly demonstrated that on the whole, the French electorate has considerably opened up with regard to the cultural dimension over the past twenty years.¹ This evolution, however, does not impede the persistence of cultural oppositions and may, at times, in fact exacerbate them; once these aggravated differences are politicized, they can provoke different voting choices.² In short, although the mean does not really interest us, the spread around the mean does. For the sake of comparability over time, each of the factors thus constituted was standardized (in standard units) with a mean of 0. This standardization will thus allow us to compare, between two elections, the impact of an independent variable on a factor measuring the same value dimension.

Sociological characteristics and value dimensions: an unchanged situation

The main question asked in this section is the following: have social groups – regardless of whether they are defined by occupation, birth cohort, education level, gender or religion – evolved over time in terms of their axiological preferences? Depending on whether the answer is affirmative or negative, we will be able to draw different conclusions about the trends observed regarding the social logics of voting. Hence, for example, if blue-collar workers are found to be less socio-economically left-leaning in 2007 than they were in 1988, their gradual shift to the right could be explained as stemming from this change in values. Consequently, the logic informing the left/right choice would remain the same as that behind old politics. If, on the contrary, workers are found to be just as socio-economically left-leaning in 2007 as they were in 1988, then we will have to find our explanation elsewhere, most likely in a two-axis political system. This is thus an indispensable step for understanding social voting motivations.

1. To be convinced of this, one needs only consult the results of the CNCNH's annual Barometer Survey on Racism, Anti-Semitism and Xenophobia in France, in particular the yearly analyses of this barometer conducted by Nonna Mayer and Guy Michelat.

2. Let us suppose that all educational levels are affected by a similar increase in cultural liberalism. It would thus follow that even if primary school graduates were less conservative in 2007 than in 1988, the gap between them and college graduates on the issue would nonetheless remain identical, if we accept that the increase is the same for both groups. This is confirmed by Cevipof's data. We constructed the scale of authoritarian ethnocentrism based on the model proposed by Nonna Mayer (*Ces Français qui Votent Le Pen* (Paris: Flammarion, 2002)) for all four polls. This scale goes from 0 – highest level of prejudice – to 10 – highest level of tolerance. In 1988, individuals with a primary school education or less obtained a score of 2.8 out of 10; in 2007, this same group obtained a 4.4 on the same scale. But the gap compared with college graduates remained 3.4 between 1988 and 2007, this latter group having seen an increase from 6.2 to 7.8 on average.

Tables 1 and 2. The social roots of socio-economic and cultural values: a linear regression modeling approach

Cultural dimension	1988		1995		2002		2007	
	Coef.	Std. Dev.	Coef.	Std. Dev.	Coef.	Std. Dev.	Coef.	Std. Dev.
<i>Occupation</i>								
Farmers	0.08	0.09	0.17*	0.09	0.09	0.11	-0.31***	0.1
Intellectual profess./senior execs	0.28***	0.09	0.48***	0.08	0.44***	0.08	0.27***	0.08
Intermediate	0.31***	0.07	0.35***	0.07	0.24***	0.08	0.21***	0.07
White-collar	0.12	0.07	0.21***	0.07	0.13*	0.07	-0.04	0.07
Blue-collar	-0.01	0.07	0.08	0.07	0.05	0.07	-0.18**	0.07
Other	0.12	0.07	0.35***	0.08	0.26***	0.09	0.15*	0.08
Self-employed (ref.)								
<i>Education</i>								
Primary	-0.22***	0.04	-0.16***	0.04	-.026***	0.04	-0.19***	0.04
Baccalaureate	0.45***	0.06	0.043***	0.05	0.38***	0.05	0.25***	0.05
College	0.61**	0.05	0.71***	0.05	0.67***	0.05	0.58***	0.05
Secondary (ref.)								
<i>Religion</i>								
Practicing Cath	-0.07	0.05	0.08	0.05	0.09	0.06	0.06	0.06
Occas. pract. Cath	-0.06	0.04	-0.08*	0.04	-0.02	0.05	-0.02	0.04
Other religion	0.29***	0.08	0.33***	0.08	0.27***	0.07	0.41***	0.06
No religion	0.36***	0.05	0.39***	0.04	0.30***	0.04	0.33***	0.04
Non-pract. Cath (ref.)								
<i>Cohort</i>								
1930 and before	-0.15***	0.05	0.10*	0.06	-0.18***	0.06	-0.03	0.07
1941-1950	-0.10*	0.06	0.15**	0.06	0.04	0.06	0.03	0.06
1951-1960	0.31***	0.05	0.25***	0.06	0.21***	0.06	0.08	0.06
1961-1970	0.43***	0.06	0.27***	0.06	0.31***	0.06	0.08	0.06
1971-1980			0.36***	0.07	0.38***	0.06	0.16**	0.06
1981-1990					0.71***	0.09	0.34***	0.07
1931-940 (ref.)								
<i>Women</i>	0.02	0.04	-0.08**	0.03	-0.02	0.03	-0.17***	0.03
_cons	-0.4	0.09	-0.55**	0.08	-0.61***	0.09	-0.09	0.09
R2	0.2632		0.3065		0.3128		0.2481	

***: significant coefficient at $p < 0.01$ level, **: significant coefficient at $p < 0.05$ level, *: significant coefficient at $p < 0.10$ level.

Socio-economic dimension	1988		1995		2002		2007	
	Coef.	Std. Dev.	Coef.	Std. Dev.	Coef.	Std. Dev.	Coef.	Std. Dev.
<i>Occupation</i>								
Farmers	-0.01	0.11	0.08	0.10	0.38***	0.12	0.06	0.11
Intellectual profess./senior execs	0.45***	0.10	0.25**	0.09	0.57***	0.09	0.22**	0.08
Intermediate	0.62***	0.08	0.44***	0.07	0.67***	0.08	0.57***	0.08
White-collar	0.64***	0.08	0.44***	0.07	0.68***	0.08	0.68***	0.07
Blue-collar	0.71***	0.08	0.56***	0.07	0.70***	0.08	0.78***	0.07
Other	0.66***	0.09	0.40***	0.09	0.61***	0.10	0.53***	0.08
Self-employed (ref.)								
<i>Education</i>								
Primary	0.07	0.05	0.02	0.05	0.07	0.05	0.11**	0.04
Baccalaureate	-0.01	0.07	-0.17***	0.06	-0.05	0.05	0.03	0.05
College	-0.11**	0.05	-0.14**	0.05	-0.05	0.05	-0.14**	0.05
Secondary (ref.)								
<i>religion</i>								
Practicing Cath	-0.40***	0.06	-0.26***	0.06	-0.18***	0.06	-0.28***	0.06
Occas. pract. Cath	-0.28***	0.06	-0.24***	0.05	-0.14**	0.05	-0.13***	0.04
Other religion	0.10	0.09	0	0.08	0.11	0.07	0.25***	0.07
No religion	0.34***	0.06	0.40***	0.05	0.31***	0.04	0.38***	0.04
Non-pract. Cath (ref.)								
<i>Cohort</i>								
1930 and before	0.03	0.07	-0.05	0.06	0	0.07	-0.03	0.07
1941-1950	0.13*	0.07	-0.02	0.06	0	0.06	-0.01	0.06
1951-1960	0.16**	0.07	0.06	0.06	0.01	0.06	0.10	0.06
1961-1970	0	0.07	-0.11*	0.06	-0.08	0.06	0.12*	0.06
1971-1980			0.05	0.07	0.02	0.07	0.11	0.07
1981-1990					0.07	0.10	0.17**	0.08
1931-1940 (ref.)								
<i>Women</i>								
	-0.07	0.04	0.14***	0.04	0.09**	0.04	0.19***	0.03
_cons	-0.46***	0.10	-0.56***	0.09	-0.78***	0.10	-1.03***	0.09
R2	0.1060		0.0871		0.0536		0.1282	

Note on how to read the regression charts: Working on continuous and standardized factors is particularly useful when comparing two different types of factors and observation periods. The variations caused by an independent variable with regard to two different factors can thus be converted into a common unit. Likewise, we can compare the influence of different independent variables. Another advantage to this approach is that it is entirely possible to tally the influence of different variables. For example, the regression analysis of the cultural factor in 1988 allows us to distinguish two extreme profiles: on the more conservative side, we find a self-employed individual, with at most a primary school education, and born in 1930 or before (so most likely retired) and a practicing Catholic; on the opposite side, we find a woman in an intermediate profession, with a college degree and no religious affiliation, born during the 1960s. In between these two extremes, the distance is 2.14 standard deviations, which gives us an idea of the importance of the variations induced by the model. Let us not forget that within the context of normal distribution, a difference of two standard deviations may express the fact that 66% of the sample population separates one case from the other. The most important deviations are produced by differences in education level (0.83 standard deviation), birth year (0.58 standard deviation), followed by religious affiliation (0.43 standard deviation) and finally occupation (0.31) and gender (though not significantly).

The socio-economic dimension

Several especially important results can be gleaned from this analysis. Even though the factors are composed of non-identical variables, the logic behind them remains particularly stable over time. This supports the empirical approach adopted here. The simplest case is that of socio-economic factors. Essentially, two social characteristics influence an individual's being more or less favorable to economic liberalism: occupation and religion. For the latter variable, the deviations between regularly practicing Catholics and atheists is 0.74 standard deviations in 1988, 0.66 in 1995, 0.49 in 2002 and ultimately 0.66 in 2007; in other words, a series of particularly strong differences for a single variable.¹ We can also observe the specific evolution of the "other religions" group during our period of analysis. Until 2002, these individuals (like non-practicing Catholics) occupied a middle position between the conservative and progressive poles formed by practicing Catholics and atheists, respectively. In 2007, the "other religions" category drew considerably closer to the atheist camp, probably due to the strong presence of Muslims in its composition.

The influence exerted by occupation likewise persists. Globally, the four analyses of the socio-economic factor reveal identical classifications by occupation for this dimension. The two most conservative groups remain farmers and self-employed individuals – in general, the difference between these two groups is not significant. They are followed by executives and intellectual professionals and then finally, at the opposite end, we find the intermediate occupations, the inactive "others",² salaried white-collar workers and, just barely at the tipping point of socio-economic progressivism, blue-collar workers. The differential between blue-collar workers and self-employed individuals oscillated between 0.70 and 0.78 standard deviation, with the exception of 1995, when the differential was "only" 0.56 standard deviation. In other words, for three out of the last four presidential elections, the gap between blue-collar workers and self-employed individuals has remained greater than the differential between practicing Catholics and atheists. According to this analysis, therefore, it is difficult to consider that occupational polarization has been eroded in favor of religious polarization. Consequently, the roots of the "old politics" are still alive and well in France, especially in their former guise, characterized during boom times by an overwhelmingly left-wing vote among blue-collar workers. Hence, here we find one of Achterberg and Houtman's results verified in the case of France: the foundational values structuring class politics have not disappeared.

What can be said about the other social characteristics? First of all, they do not have a significant, systematic influence on this socio-economic dimension and even when they do attain a minimal level of significance, the differentials produced are limited when compared to the occupational and religious factors. Education offers a good example: coefficients often do not reach the level of significance that might have been hoped for, even if those with a primary school education or less appear to be significantly differentiated from college graduates. At best, this difference reaches 0.25 standard deviation or less, i.e. roughly half of the gap between practicing Catholics and atheists, or about a third of the difference separating self-employed individuals and blue-collar workers; it is thus at most a secondary characteristic. We may nevertheless wonder if lower levels of education, independently of occupation,

1. The interquartile distance, which separates the 25% most anti-liberalism voters from the 25% most pro-liberalism voters, for this factor varies between 1.44 and 1.52 standard deviations.

2. Retirees were grouped with their previous occupational group.

might not imply greater feelings of social insecurity, especially in a job market where unskilled laborers experience the most precarious working conditions and highest risk of unemployment. This hypothesis could also explain why women started to become more economically anti-liberal in 1995: they were the first to suffer from the dualization of the job market into long-term, contract employment and insecure, temporary employment.¹

Finally, the absence of any real influence linked to birth cohorts weakens the post-materialist theory. Independently of their birth year, the “newcomers” and members of birth cohorts who were already old enough to vote in 1988 share the socio-economic values of their occupational or religious groups. Not only have the axiological roots of “old politics” survived, but they are likely to persist in the future since birth cohorts – and hence generational renewal – do not appear to significantly alter socio-economic values.

The cultural dimension

Globally, the relationship between social characteristics and socio-economic values has stayed the same regardless of the presidential election studied; the same is true for the cultural dimension. However, individual social characteristics have a different impact: the most important characteristic here is the level of education, followed by birth cohort, religious affiliation and finally, occupation.

Education levels have a particularly strong influence on the cultural factor: between voters with a primary school education or less and voters with a college degree, we observed a differential fluctuating between 0.77 and 0.92 standard deviations (this polarization is three times greater than that observed with regard to the socio-economic cleavage). Here again we can thus confirm the conclusions put forth by Achterberg and Houtman: these values are first and foremost an issue of cultural capital, ranking far ahead of economic capital. Birth cohorts also have an impact on the cultural dimension, in a quasi-linear fashion, with those cohorts born before the Second World War being almost systematically more conservative than the baby boom generation (born between 1944 and 1960). However, during each election, these last two cohorts almost always turn out to be more conservative than voters born after 1971, and are quite often more conservative than voters born during the 1960s. Generational renewal thus quite evidently leans towards greater tolerance, as previous research has suggested.² Here we are in agreement with Inglehart, but this nonetheless does not entail the disappearance of the socio-economic cleavage. The use of birth cohorts is particularly important: first of all because it gives us an idea of mid-term dynamics within the electorate (here, a move towards greater tolerance), but most importantly, because the variances produced by this demographic data are often greater than those caused by the two traditional “heavy” variables of religion and occupation.³

The polarization caused by religion with regard to cultural values is similar to its impact on the socio-economic dimension. Accordingly, the Catholic contingent is consistently located on the conservative side, while “other religions” and atheists are generally on the progressive

1. Bruno Palier, Kathleen Thelen, “Institutionalizing dualism: complementarities and change in France and Germany”, *Politics and Society*, 38(1), 2010, 119-48.

2. Among others, see: Étienne Schweisguth, “France: le mythe du néoconservatisme”, *Futuribles*, 227, January 1998, 21-34; Nonna Mayer, Guillaume Roux, “Des votes xénophobes?”, in Bruno Cautrès, Nonna Mayer (eds), *Le nouveau désordre électoral* (Paris: Presses de Sciences Po, 2004), 97-117; V. Tiberj, “L’impact politique du renouvellement générationnel”.

3. With the exception of 2007, but it may be argued that this was a survey effect.

side. In other words, the religious variable simultaneously polarizes cultural *and* socio-economic voting logic. No doubt this result allows us to explain why this social characteristic continues to influence voting choices, unlike class. Catholicism, regardless of how observant its adherents are, leans towards the right – whether this logic is the product of cultural reasoning, socio-economic reasoning, or a mix of the two – whereas atheism both culturally and socially leans towards the left.

Religion is the only sociological variable which impacts both dimensions in the same manner, unlike, for example, class. In the case of class, for instance, important and consistent effects can be observed over time, but it expresses itself through a different “class paradigm”: the culturally tolerant side is not the socially progressive side. In this second case, blue-collar workers are just at the tipping point, followed by white-collar workers, intermediate occupations and “others”. The cultural “avant-garde” is generally represented by senior executives, intellectual professions and intermediate occupations; blue-collar workers are situated alongside farmers and self-employed workers as part of the “closed” group. In other words, cultural liberalism and economic liberalism are not similarly inscribed into the professional universe.

This analysis validates our first hypothesis: socio-economic and cultural values are rooted in lasting social structures. Consequently, the drop in the working class vote for the left does not imply that blue-collar workers have become socio-economically more conservative – in reality the opposite is true. In 1988 as in 2007, they were the group most opposed to economic liberalism, as shown in Annex 2. It is also interesting to note that in 1988 and still in 2007, workers distinguished themselves from the rest of the French electorate by their cultural conservatism. This is even more significant if we consider that in 1988, the working-class vote for the FN was still marginal, while by 2007, this group had become one of the last bastions of Le Pen supporters.¹

However, at the present stage it is rather tricky to address the second and third hypotheses, as the relationship between values and votes has not yet been analyzed. However, we do have fairly clear expectations about the impact that the rise in power of a two-axis political system may have in supplanting the “old politics”. Taking into account the relationship between individual social characteristics and, on the other hand, socio-economic and cultural preferences, we may thus be able to understand why some variables have gained voting influence (birth cohort and education level), others have remained stable (religion) and still others are changing (occupation), if we consider that voting choices have also become a reflection of cultural preferences. These assumptions suggest that the fourth hypothesis will also be validated.

The two-axis vote

The similarities between the electoral situation in France and in the Netherlands are striking. Here as there, the axiological roots supporting the class vote have survived, but the cultural dimension is potentially in a position to choke them. The present analysis supplements Achterberg and Houtman’s conclusions in two different ways. First of all, it illustrates why the shift towards a two-axis politics does not necessarily translate into

1. Nonna Mayer, “Comment Nicolas Sarkozy a rétréci l'électorat Le Pen”, *Revue française de science politique*, 57(3-4), 2007, 429-45.

a complete reorganization of alignment of social groups – whether they are religious or occupational (to limit ourselves to the two heavy variables in France) – with the right, but also in some cases with the left. Secondly, it demonstrates that the social logic of these axiological dimensions still endures. As early as 1988, cultural polarization was already socio-logically embodied in the same fashion as in 2007. The same can be said of socio-economic polarization. Moreover, the impact of generational renewal leads us to believe that this logic of socio-economic polarization should persist in the future – unlike cultural logic – as the incoming cohorts, like their elders, are generally distributed by occupation and/or religious affiliation.

And yet, I believe that the politicization of the cultural dimension witnessed in France is not identical to that observed in the Netherlands. I suggest that the “old” political parties in France have managed to adapt by developing a two-axis approach. They thus knew how to respond to the growing pressures exerted by the new left- and right-wing parties. Consequently, I postulate that cultural values impact voting choices even when voters must choose between two traditional political parties, such as today’s PS and UMP. In other words, France is not (or is no longer) a political environment in which voters who emphasize their cultural preferences during the first round of presidential elections (by voting for the FN, for instance) are then forced to resort to a second, socio-economic choice during the second round, as was the case for the *ouvriéro-lepénistes* in 1995.¹

In order to prove this theory, I will examine the impact of the socio-economic and cultural dimensions on votes for the PS, on the one hand, and votes for the RPR/UMP, on the other. To this end, first- and second-round votes during the presidential elections will be modeled. This time, I will also integrate the “hypothetical” second round of the 2002 presidential election, which would have pitted Lionel Jospin against Jacques Chirac.² For the first round, votes will be modeled in competition with the other components of the political landscape faced by the socialist and neo-Gaullist candidates. Thus, we will be able to analyze the constraints of choice aggregation implied by the second round (especially for those voters whose preferred candidate was no longer in the competition), but also the electoral heart of both of these parties, the “true believers” who select their candidates right off the bat, from the first round. Statistically, it is thus a question of logistical models – multinomial in the first round and binomial in the second – that are composed of two independent variables: the socio-economic and cultural factors.

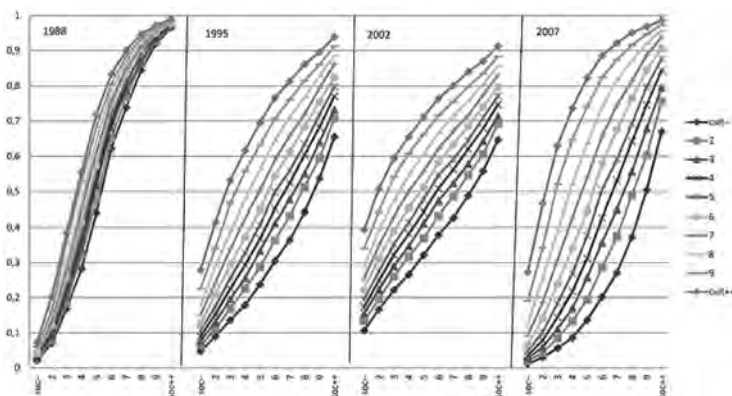
In essence, the story told by these models is indeed that of the incorporation of two axes into the voting rationale of both the left and the right. This phenomenon can be summarized by contrasting the 1988 and 2007 elections. In the first case, the choice between François Mitterrand and Jacques Chirac was largely a matter of socio-economic issues for voters, whereas in the second scenario, both axiological dimensions played an almost equal role. In 1988, independently of cultural position, the ballots cast first and foremost demonstrated the liberal or socially-minded positioning of voters. To wit: the probability of voting for the left when one was situated in the least social decile fluctuated between 0.02 for the most authoritarian and 0.07 for the most liberal, culturally speaking, whereas it varied between 0.96 and 0.99 in the case of the most “social” individuals. In other words, individuals from the first group had almost no chances of voting for the left, while those from the second

1. N. Mayer, *Ces français qui votent FN*.

2. Let us recall that we were obliged to work with the 2002 pre-electoral poll, so the first and second rounds are both in fact measures of voting intentions rather than actual votes cast.

group almost all voted for François Mitterrand, regardless of their cultural progressivism or conservatism. This is thus a quasi-perfect case demonstrative of the “old politics”, fundamentally structured by socio-economic values. At the time, cultural issues lagged far behind socio-economic problems in importance; they only started to influence the choices of voters whose socio-economic preferences were not highly structured: the 4th, 5th, and 6th deciles. Here, and only among individuals who were generally situated half-way between the right’s economic liberalism and the left’s social propositions, did cultural values become a deciding factor. Hence, among individuals belonging to the 5th social decile, the probability of voting for the left went from 0.44 for the most conservative voters to 0.72 for the most tolerant; in the 4th decile, these figures evolved from 0.28 to 0.55.

Figure 3. Predicted probabilities of votes for the left in the second round
(1988-2007)



Notes on how to read this graph: This graph illustrates the probabilities predicted by the model of a left-wing vote during the second rounds between 1988 and 2007’s presidential elections. We have chosen to recode the two factors by deciles. Thus, the graph represents the average probabilities of voting for the left according to the socio-economic and cultural deciles to which the surveyed individuals belonged.¹

Let us now analyze the 2007 presidential election. The increased polarization caused by the cultural factor is unmistakable. In 1988, the cultural factor entailed a maximum probability variation of 0.28 between the conservative and progressive extremes, and this only for the 5th social decile. In 2007, if we take the same analytical framework and apply it to the 5th decile again, the variation observed is now 0.68,² ranging from a 0.14 probability of voting for the left among the most conservative voters and a 0.82 probability of doing so for the most progressive voters. The choice between Nicolas Sarkozy and Ségolène Royal thus illustrates the rise in importance of cultural values. It is also noteworthy that the maximum probability differential in 1988 is henceforth surpassed in 9 out of 10 “social” deciles. For example, in the 2007’s most social decile, the probability of voting for the left moves between 0.67 for the most conservative voters and 0.99 for the most tolerant; i.e., a probability difference of 0.32. We find a similar situation among the most economically liberal individuals. In conclusion, the cultural factor is thus eroding both the normative hardcore of the

1. Intuitively, this graph can also be read as an anatomical analogy. The curves can be interpreted as muscular fibers, contracting and relaxing according to the elections. I would like to thank Viviane Le Hay for this reading.

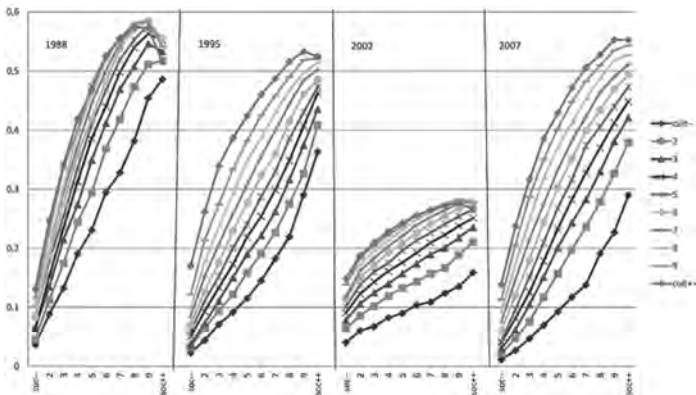
2. Let us recall that the maximum differential for a probability is 1: between 0 (no chance of voting for the left) and 1 (certainty of voting for the left).

old left and the old right; that is to say, among voters for whom a left- or right-wing vote would have been almost certain in 1988. Whereas between François Mitterrand and Jacques Chirac, the cultural factor was only a default choice for voters who were undecided with regard to the socio-economic positions of the two candidates, it has now become a determining factor pushing voters either towards the socialist or the UMP candidate. The “new politics” thus has an increased impact, including on the PS and the UMP.

Figure 3 clearly shows how, little by little, the socio-economic dimension has seen its influence reduced between 1988 and 2007, partially because of the minor differences provoked by the cultural factor, according to voters’ socio-economic positions and, in 2007, because of lines that are increasingly distant from each other. I constructed a summary measure comparing the impact of both factors on voting choices:¹ the ratio of the impact of the socio-economic factor compared to that of the cultural factor was 3.20 in 1988; this ratio was only 1.30 in 2007. We can also observe that, as early as 1995, the cultural factor began to muddy the traditional link between voting and the socio-economic dimension; this is likewise confirmed in the theoretical second round between Jacques Chirac and Lionel Jospin. Two-axis politics had thus already been at play for longer than suspected, which is an important discovery in and of itself.

But the analysis here is based on the second rounds, which group together particularly heterogeneous constituencies, certain members of which are forced to settle for a second choice – sometimes eliminating candidates rather than truly aligning themselves with one.² In such cases, it is difficult to determine, based on these results alone, if the PS and the UMP have synthesized the two axes for good, or whether they are merely taking advantage of voters who are already aligned, according to the new political environment, but who are forced to make do with the choices remaining in the second round. It is thus necessary to investigate the first round of presidential elections, as it pits the PS against the UMP amid a sea of other political alternatives, especially the partisan incarnations of the new left and new right embodied by the Verts and the FN, respectively.³ Once we begin to examine the voting logic at play in the first round, the particularity of the 2007 election becomes immediately apparent: this presidential election in fact seems to be the culminating point of an adaptive cycle normalizing electoral supply and demand.

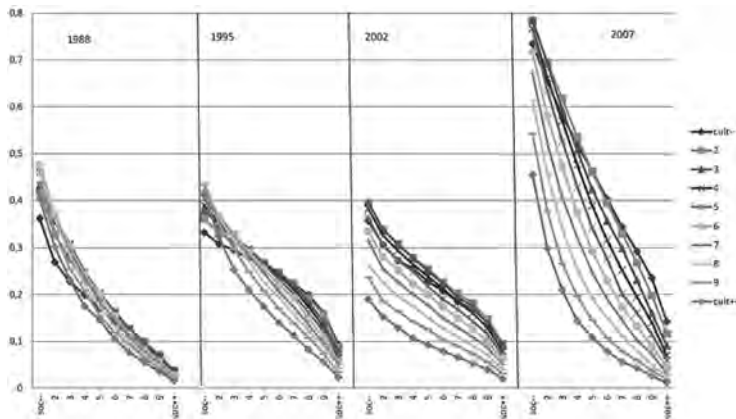
Figure 4. Predicted probabilities of voting for the PS in the first round (1988-2007)



1. Whose formula is the following: ratio of the standard deviation of the average probabilities produced by the social factor on the standard deviation of the average probabilities produced by the cultural factor.

2. Helena Catt, *Voting Behavior. A Radical Critique* (Leicester: Leicester University Press, 1996).

3. Annex 3 features the voting probabilities for both of these parties.

Figure 5. Predicted probabilities of voting for the RPR/UMP in the first round (1988-2007)

Of course, voting patterns during the first round are usually more erratic, due to the multiplicity of electoral options. This is the case with stated voting intentions for Lionel Jospin and Jacques Chirac in 2002, for example. This analysis nonetheless allows us to nuance our previous inquiry. Here the diagnosis concerning changes in voting logic between 1988 and 2007 remains largely the same, except for the fact that we are now addressing the core electorate of the socialist and neo-Gaullist movements; in other words, a more positively motivated vote than second-round coalitions usually command. 1988 was thus already a social election in its second round, and the same was true for PS and RPR votes in the first round: when we move from the most economically liberal voters to the most socially-minded voters, the probability of voting for the incumbent president shifts, on average, from 0.03 to 0.61, while that of voting for his prime minister varied between 0.47 and 0.01. As before, the cultural factor only had influence over the centrist social deciles, and here only in the case of a socialist vote. With regard to the RPR, its impact was even more marginal, with probability variations consistently below 0.06.¹

In 2007, the reasoning behind both the PS and the UMP vote changed considerably, creating two diametrically opposed constituencies: the former rooted in social and cultural progressivism while the latter supported economic liberalism and cultural conservatism. Let us thus examine voters who were socially the most likely to vote for the left or for the right. In the case of the PS vote in 1988, the maximum variation produced by the cultural factor for the most social decile was only 0.08. In 2007, this variation had reached 0.23. In the case of RPR and UMP voters, the most economically liberal decile saw a change from 0.01 to 0.37. In other words, even in these socio-economically highly aligned deciles, cultural values are now exerting a strong influence on voting choices, even during the first round of elections. Candidates from the two major French parties are now indeed considered by voters to be incarnations of these two value axes. Some voters will cast their ballot based solely on social issues, others on cultural issues, and many will consider both in their voting choice. As a result, voters who, in the old political environment based on socio-economic issues, were

1. This marginal impact is notably linked to the fact that the FN was, already at the time, the embodiment of a new right (see Florent Gougou, Vincent Tiberj, "Les électeurs du Parti socialiste: sociologie de l'électorat d'un parti en reconversion (1981-2007)", in Remi Lefebvre, Frédéric Sawicki (eds), *Sociologie des socialistes* (Paris: Economica, forthcoming).

“destined” to select the UMP candidate might well reject this candidate now for purely cultural reasons (we observed a 0.4 rate of probability of voting for Nicolas Sarkozy among the most culturally progressive economic liberals, compared to a 0.08 rate of probability among the most culturally conservative economic liberals).

This shift from a socio-economically rooted voting rationale to one that encompasses both axes nevertheless occurred at different moments for France’s two major parties. In 1995, this swing had already happened with regard to the PS. If we refer back to our comparative measurement of the impact of the two axes, in 1988 the social factor engendered three times more variation in voting choices than the cultural factor. In 1995, these two factors had equal influence, and in 2007 the ratio was 1.3 in favor of the social factor. On the other hand, however, votes cast for Jacques Chirac in the 1995 election were still fundamentally motivated by socio-economic issues. The 1988 ratio was 3.4 in favor of the first dimension, while in 1995 it was only 2.8. If we turn to the two main socio-economic target groups, the results are even clearer. Among the most liberal, votes for Chirac fluctuated between a 0.31 rate of probability for the most culturally tolerant and 0.44 for the most conservative (i.e., a differential of 0.13). Among the most social decile of the electorate, the differences were even greater in favor of Lionel Jospin: between 0.24 for the most conservative voters and 0.55 for the most culturally open (i.e., a differential of 0.31). This difference between a PS which was bridging the gap between the new and old left, and an RPR candidate who was still associated with the old right is most likely related to internal political competition within these two respective camps. While on the right, the “new politics” was embodied by Jean-Marie Le Pen, already firmly entrenched in French political culture, no single party on the left – not even the Verts – has managed to unite all the advocates of the new cultural left.

It was not until 2007 that the cultural dimension finally wielded enough influence over voters to drive forward a neo-Gaullist candidate, with a ratio which was almost identical to that of the PS (1.5 versus 1.3). By hoping to “shrink Jean-Marie Le Pen’s electorate”,¹ Nicolas Sarkozy thus brought his camp into the era of two-axis politics – possibly for a while.

Conclusion

At the end of this analysis, the four hypotheses tested have been confirmed. The cultural values layered on top of traditional socio-economic values do in fact constitute a voting rationale in France. However, although it was originally believed that these cultural values only influenced the extreme right-wing vote, and, consequently, the first round of presidential elections, here we have evidence that they are also implicated in the choice of traditional parties such as the socialists and the neo-Gaullists. As a result, we better understand the changes behind voting motivations. If blue- and white-collar workers are now split between the left and the right, it is indeed because they are torn between their socio-economic progressivism and their cultural conservatism. Nevertheless, these social groups are not the only ones to experience this kind of pressure, since senior executives and intellectual professionals are in an inversely symmetrical situation. These tensions surrounding values were not at play in the days of the old political environment and this explains why certain social rationales informing voting choices have been at least partially eroded. The politicization of cultural values likewise helps to better understand why the religious

1. To use N. Mayer's expression, “Comment Nicolas Sarkozy a rétréci l'électorat Le Pen”.

variable remains essential to explain voting choices. In 1988, it expressed itself through its normative socio-economic implications. In 2007, its influence was wielded via values that were representative of both the old and new politics. We thus also understand why education levels and birth cohorts have increased in influence. In summary, we believe that the theory of two-axis politics explains the paradox behind social voting motivations.

One of the fundamental contributions of this research is to show how competition between the UMP and the PS has been reorganized around two poles: an economically liberal but culturally conservative pole and a socially and culturally liberal pole. Let us recall that this transformation was far from inevitable, as France could have followed in the footsteps of the Netherlands and witnessed the rise of new left- and right-wing parties supplanting the traditional two major parties. In this regard, the French political landscape is notably different from the scenario described by Achterberg and Houtman. The French traditional party system was able to survive and incorporate the consequences of the silent revolution and its counter-revolution. The question that remains is how to explain this adaptive ability. We believe that the answer lies in the nature of the voting system. Whilst in the Netherlands, as studied by Achterberg and Houtman, proportional representation offers a chance for new left- and right-wing parties to form, alongside and then in competition with traditional parties, in other voting systems these parties are forced to pipe down and get in line. For example, in France the Verts were forced to align themselves with the left, in an alliance system dominated by the PS, whereas as a lone warrior the FN cannot, for the moment, increase its power, as the new political climate otherwise promises.

This explanation in terms of voting systems seems especially pertinent because it allows us to explain the evolution of other political systems, in particular that of the United States. The latter is a political system where no important party has emerged since the beginning of the twentieth century, even though there as well the “new politics” has put down roots, in particular via racial issues but also cultural questions such as homosexuality and abortion. It is interesting to note that Republicans have gradually conquered the culturally conservative pole, faced with the Democrats’ dominant position with regard to socio-economic issues. In other words, it seems necessary to take into account political systems as a whole and over time in order to better grasp the importance of the socio-economic and electoral changes that have occurred during the last few decades.

We have at our disposition an explanatory framework that allows us to understand both the stable elements in elections; we must nevertheless remember that the situation can change dramatically. The United States, for example, shows us that as recently as the 1950s, the Republicans were the culturally open party, while the Democrats represented the conservative pole.¹ Here we witness the fruit borne by a system of “powers” where different parties often see their strategies to try and win over voters thwarted by their rivals and where voters frequently react to these various strategies in an unpredictable manner that is surprising to the parties themselves.² For the moment, the shift towards a two-axis political system appears relatively stable, but this equilibrium is necessarily “local” in the sense that it may change if

1. Ted Carmines, James Stimson, *Issue Evolution. Race and the Transformation of American Politics* (Princeton: Princeton University Press, 1989).

2. In order to win, social democratic parties have been confronted with a dilemma: either appeal to middle-class voters in order to gain a majority, or persist in traditional class politics. But have they knowingly sacrificed the working class in order to appeal to this other electorate? Hard to say. Adam Przeworski, John Sprague, Paper Stones. *A History of Electoral Socialism* (Chicago: The University of Chicago Press, 1986).

different forces are affected by an outside shock or new strategies. It is thus hard to predict which of the value dimensions will prevail in the future. Nevertheless, we can imagine how social voting motivations may be impacted by this dimensional hierarchy. Different scenarios are possible in 2012. The presidential election may be decided on the basis of strong socio-economic values, as in 1988; in this case, we may see the working class return to the left. We can also imagine a repeat of 2007's "two-axis" scenario, and perhaps even an increase in the cultural dimension's influence. In this case, blue- and white-collar workers as well as executives would continue to be split between the left and the right; the first two might even lean towards the right as a majority, while executives would tend to support the left.¹ Clearly this is proof of the two-axis scenario in action.²

Vincent Tiberj

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1. The author would like to thank his colleagues who helped him with this text: Flora Chanvriil, Florent Gougou, Gérard Grunberg, Florence Haegel, Antoine Jardin, Pierre Martin, Nonna Mayer, Patrick Le Galès, James Stimson, Étienne Schweisguth, and most of all Sophie Duchesne and Viviane Le Hay for their advice, criticism and support.
 2. See Vincent Tiberj, "Values and the votes: from Mitterrand to Hollande", forthcoming in *Parliamentary Affairs*, 2013.

Annex 1. Empirical value dimensions

Here I will present the empirical method chosen to measure and compare the socio-economic dimension and the cultural factor, over time. The challenges began when I attempted to investigate issues over time via the four polls conducted by Cevipof: the 1988 and 1995 post-electoral surveys, as well as a 2002 pre-election survey and a 2007 post-election survey. It was not sufficient to use only the (too) rare question sets that were present in all four polls. Such an approach would not have been satisfying, as only two questions regarding socio-economic preferences would remain (the positive or negative connotations of the words “privatization” and “profit”). In terms of the cultural dimension, only three questions were asked in a similar manner across all four polls. Voters were asked if they agreed or disagreed with the following statements: “There are too many immigrants in France”; “The death penalty should be reinstated”; “First and foremost schools should give a sense of discipline and hard work”; “School should above all educate people to have sharp and critical minds”.

Regarding the initial polls and the usable trend questions (i.e., those repeated in at least two different presidential election polls), the measures would thus be enormously impoverished, even without accounting for potential measurement bias caused by certain questions. For example, the issue of “profit” has a strong relationship to views about the economy, of course, but also refers to a religious dimension (the relationship of Catholics to money) which may skew the measurement further.

I thus proceeded to select survey questions that had been asked multiple times, judging that if they had been repeated, this indicated that the teams in charge of writing the polls had felt they were good indicators. Their “survival” is especially remarkable if we consider that French surveys are not generally favorable to time series analysis. This selection was made not from the four aforementioned polls but from a group of fourteen surveys conducted between 1988 and 2007; in addition to the presidential polls (four pre- and post-election), I thus added 1997’s legislative survey, the 2000 “democracy” survey, the “mirror” and “suburbs crisis” surveys from April and December 2005, and the four waves of the *Baromètre politique français* [French political barometer] in 2006 and 2007. This group forms a database of more than 40,000 individuals polled, allowing for a close observation of the evolution of French public opinion over the past twenty years.

Factor design

Even if the selection constraint of questions being present in different polls is relaxed, the number of questions on which we can rely remains relatively small in some cases. Generally, the Cevipof surveys offer more cultural indicators (between 6 and 12 depending on the poll) than social ones (between 4 and 7). This reflects the difficulty research teams experience when trying to fully understand the socio-economic dimension and maintaining these indicators over the long term. And yet let us recall that I only took into account indicators that were present in multiple surveys and not a certain number of questions that only occurred in a single poll. The charts that follow show the questions composing the cultural and socio-economic factors by survey year, as well as the questions’ contribution to establishing factors, the factors’ eigenvalues and the degree of variance for which they account. In every case but one, non-responses were excluded from the study, these comprising fewer than 5% of all respondents. The only exception occurred for the question “Jews have too much power

in France' in 1988, where almost a third of the individuals polled refused to state their opinion. In this case, non-responses were assigned to the mean.¹

I have chosen to treat these questions as continuous variables, although this may be challenged from a statistical point of view. I could instead have considered them as nominal variables and thus relied on techniques such as multiple correspondences analysis (specific or not). I chose to approach the questions according to their ordinal nature, considering that these opinions were thus measured on a scale of 1 to 4. Of course, it would have been more useful to have a 10-point scale, as the response categories are somewhat coarse. Nevertheless, I am drawing on a fairly common analytical tradition in psychology and electoral sociology, as attested by the use of correlation coefficients on these types of variables or even the creation of traditional attitude scales. As a result, the use of non-hierarchical scales equates to adding the scores obtained for different variables, unlike in the case of hierarchical attitude scales as presented by Éric Kerrouche and Guy Michelat.² Let us note that an individual's factorial score will equal the sum of his answers weighted by the contribution of these same questions. A response to a question that has very little correlation with the factor will weigh less than an answer to a question that has a stronger correlation with the latent variable in question.

1. Readers wishing to know the exact wording of the questions as well as the frequency distribution of the questions used here can refer to the Centre de données socio-politiques de Sciences Po (CDSP)'s website, which archives French electoral polls and publishes various information at: <<http://cdsp.sciences-po.fr/enquetes.php?idTheme=1&idRubrique=enquetesFR&lang=FR>>.

2. Guy Michelat, Éric Kerrouche, "Les échelles d'attitude", *Revue internationale de politique comparée*, 6(2), 1999, 463-512.

Table 3. Questions used to construct the cultural dimension and their contributions to the PCA

	Presence in the question sets				Factor loadings			
	1988	1995	2002 ¹	2007	1988	1995	2002	2007
There are too many immigrants in France	*	*	*	*	0.447	0.457	0.414	0.511
Jews have too much power in France	*		*		0.338		0.277	
Critical thinking/discipline in schools	*	*	*	*	0.334	0.320	0.312	0.416
I don't feel at home anymore	*	*	*	*	0.370	0.442	0.363	0.448
A society needs hierarchy and a leader	*		*		0.258		0.168	
Women are made to have children and raise them	*				0.248			
It is normal that Muslims have mosques	*	*			-0.294	-0.338		
The death penalty should be reinstated	*	*	*	*	0.407	0.403	0.343	0.434
I am proud to be French	*		*	*	0.243		0.064	0.101
Homosexuality is an acceptable way of expressing one's sexuality		*	*			-0.250	-0.252	
Authority (pos/neg)		*	*			0.213	0.143	
Islam (pos/neg)		*	*	*		-0.325	-0.277	-0.404
Maghrebi French individuals are just as French as others			*				-0.326	
Some races are less talented than others			*				0.322	
Total number of questions	8	8	12	6				
Eigenvalues/factor's % of variance					2.37/ 34 %	3.15/ 39 %	3.95/ 33 %	2.39/ 39 %

1. The poll used is pre-election rather than post-election, both for reasons of trend question presence but also due to the sampling technique. 2002's post-election poll was strongly influenced by 21 April but also by the EDF's financing. In other words, several trend questions were excluded and questions about current environmental issues and/or France's energy policies were included. Moreover, the post-election poll sample population was composed first of panelists who had previously responded to the pre-election survey and had accepted to be part of the follow-up survey, and secondly, of survey-takers who were selected to fulfill the quotas. The representativeness of this sample is thus cast into doubt, especially when we look more closely at the panelists from 2002 (see Viviane Le Hay, "Le panel électoral français 2007: enjeux de méthode", in Bruno Cautrès, Anne Muxel (eds), *Comment les électeurs font-ils leur choix?* (Paris: Presses de Sciences Po, 2009, 259-84)).

Table 4. Questions used to construct the socio-economic dimension and their contributions to the PCA

	Presence in the question sets				Factor loadings			
	1988	1995	2002	2007	1988	1995	2002	2007
Profit (pos/neg)	*	*	*	*	0.196	0.511	0.553	0.357
Privatization (pos/neg)	*	*	*	*	0.391	0.610	0.648	0.399
Nationalization (pos/neg)	*	*			-0.404	-0.255		
Socialism (pos/neg)	*				-0.462			
Abolishing the right to strike is a serious matter	*				-0.362			
Eliminating unions is a serious matter	*				-0.375			
The state should control corporations more or trust them more	*			*	0.396			0.359
Salaries prioritized or economic competitiveness prioritized		*		*		0.548		0.417
Solidarity (pos/neg)			*				-0.170	
There are too many gov'n't employees			*	*			0.493	0.395
Trust in labor unions				*				-0.308
We must reduce the gap between rich and poor				*				-0.397
Total number of questions	7	4	4	7				
Eigenvalue/factor's % of variance					2.37/ 34 %	3.15/ 39 %	1.55/ 38 %	2.33/ 33 %

Let us recall that each of these factors has been standardized. They all have an average of 0 and one unit corresponds to one standard deviation of the factor. The value of this method interest lay in obtaining an estimation of the latent variables of interest in the form of continuous variables and relying on a greater number of questions, the latter being “authorized” to bring greater or lesser weight to bear on the different factors (unlike in attitude scales).

But even if we relax the survey question selection criteria, we are still limited by polls which contain a small number of indicators repeated over time. This is notably the case for the socio-economic dimension in 1995 and 2002.

The number of questions integrated into the PCA has a direct impact on the sample distribution, as can be observed in the two charts that follow. The first illustrates the worst empirical case, that of the socio-economic factor in 1995, and the second the best empirical case, that of the cultural factor in 2002. In the first scenario, only four poll questions form the basis of the factor, compared to twelve in the second case. It is evident that more questions produce more significant data, since the dispersion is greater in the second scenario and begins to approach a “normal” distribution pattern with all the statistical qualities that this entails. Nonetheless, here we are forced to “make do” with empirical choices that were made over fifteen years ago. There is enough dispersion and variation within the sample for the analysis to make sense, however: the factors obtained thus present all the advantages of continuous variables. Moreover, the relative stability of the results over the time of the analysis supports the robustness of the empirical approach: if the method had been ill designed, we would have witnessed erratic

variations over time, both in the relationship between social characteristics and value dimensions and in the relationship between values and votes. Likewise, the stability of results for FN and Verts votes confirms the quality of the measurements (see Annex 3).

Figure 6. Social factor in 1995 (worst case scenario)

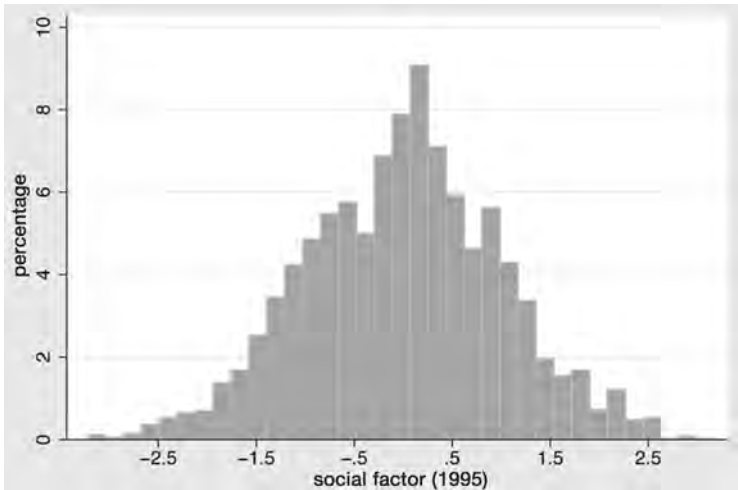
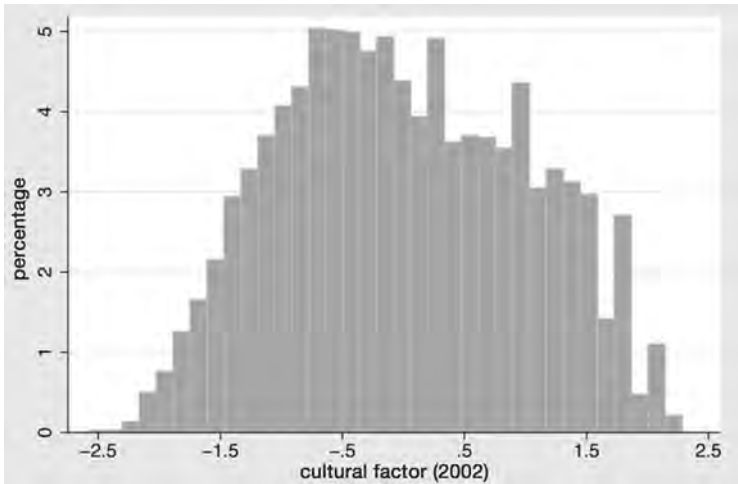


Figure 7. Cultural factor in 2002 (best case scenario)



Ex-post tests on factor quality

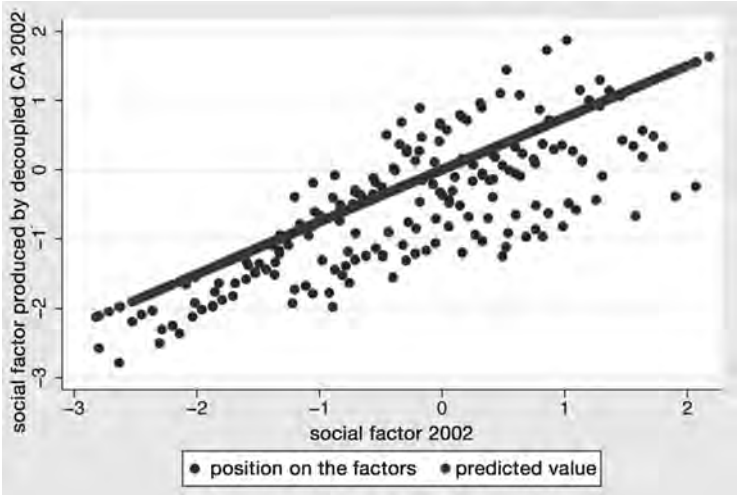
Two concerns still remain: first, the quality of the factors thus produced and second, their comparability over time. The first question has notably been posed by one of the evaluators of a previous version of this article, who suggested recalculating the factors using two other methods, factor analysis and decoupled correspondence analysis.¹

1. A method that is particularly useful to correct Guttman effects, and which mainly consists in producing inverse copies of the variables of interest and integrating all of these into a correspondence analysis (for an especially clear presentation of this method, see F. Chanvriil, “L’analyse des correspondances”).

Table 5. Correlations between the factors used in the analysis and those produced using two other methods

Initial PCA factor	Factor analysis	Decoupled CA
Social 1988	0.911	0.920
Cultural 1988	0.994	0.922
Social 1995	0.805	0.857
Cultural 1995	0.781	0.880
Social 2002	0.981	0.751
Cultural 2002	0.959	0.921
Social 2007	0.965	0.917
Cultural 2007	0.981	0.772

Figure 8. Connection between two types of factors in the worst-case scenario



Globally, it is difficult to view the factors used as unstable and thus misleading. In 10 out of 16 cases, the correlations between the factors in PCA, factor analysis and decoupled CA surpass the 0.9 mark, and in 13 out of 16 cases they were greater than 0.8. In other words, in the majority of cases these factors are redundant. In a linear regression with this sort of correlation, the risk of multicollinearity would be certain. In the case of the weakest association (0.751), we can ascertain deviations between the two factors but it is difficult to invalidate the PCA method to conduct the analysis (as shown in Figure 8).

What remains is the problem of factor comparability over time. Standardization allows us to resolve the problem of different metrics. Consequently, an individual situated as point -1 signifies that he is one standard deviation away from the sample mean, regardless of the survey year or dimension analyzed. Nevertheless, although for any one poll the creation of socio-economic and cultural factors does not present any specific problems, do the factors truly measure the same latent dimension when they are assembled from different polls and survey questions? In order to address this problem, we decided to control for levels of correlation with repeated questions for each of the factors thus composed. The cultural factor

presented the simplest case. For this factor, we can refer to the ethno-authoritarianism scale mentioned earlier. The cultural factors elaborated for the 1988, 1995, 2002 and 2007 presidential elections are indeed comparable and measure the same phenomenon; the correlation between each of them and the scale fluctuated between +0.92 (in 1995) and +0.96 (in 2007). Comparison is thus possible for this normative dimension. In terms of the socio-economic factor, validation was only possible question set by question set, due to the lack of an appropriate and standardized attitude scale. Nonetheless, correlations between the most frequent socio-economic questions and the factors of this dimension produce coherent results. The correlations vary between +0.60 and +0.80 for opinions on privatization; between +0.30 and +0.69 for opinions on profit; between +0.55 and +0.61 for state control of corporations; and between +0.63 and +0.68 for arbitration between company competitiveness and improving salary conditions. As predicted by statistical theory, these correlations are weaker than for the cultural dimension but do not invalidate the comparison over time of the socio-economic factors. To conclude this methodological discussion, it is thus possible to state that this method of an empirical two-dimension design was pertinent, at least according to the tests conducted.

Annex 2. Social coalitions and values

In the body of this article, sociological variables were considered to be explicative of values, thus implying that these values were related to occupation, religious affiliation, birth cohort, gender, or education level. It is equally possible to analyze the connection between these variables in a more descriptive manner if we examine the way in which different social groups differentiate themselves along these two dimensions. It is no longer, then, an issue of knowing which of the voters' sociological characteristics influence their socio-economic or cultural values, but of analyzing the position of each group for the different factors and especially their positions relative to each other.

Figure 9. Average position by occupation

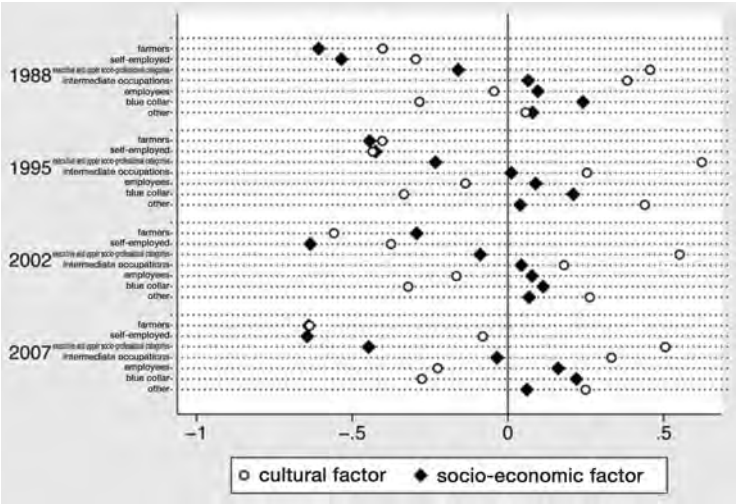


Figure 10. Average position by religion

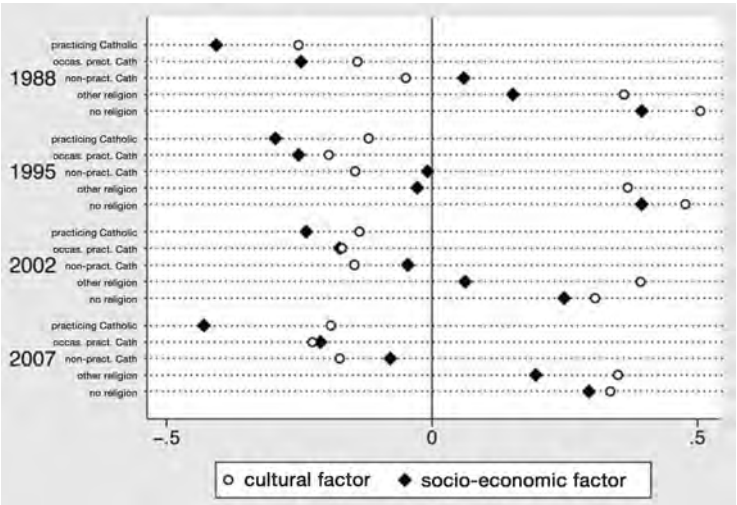


Figure 11. Average position by cohort

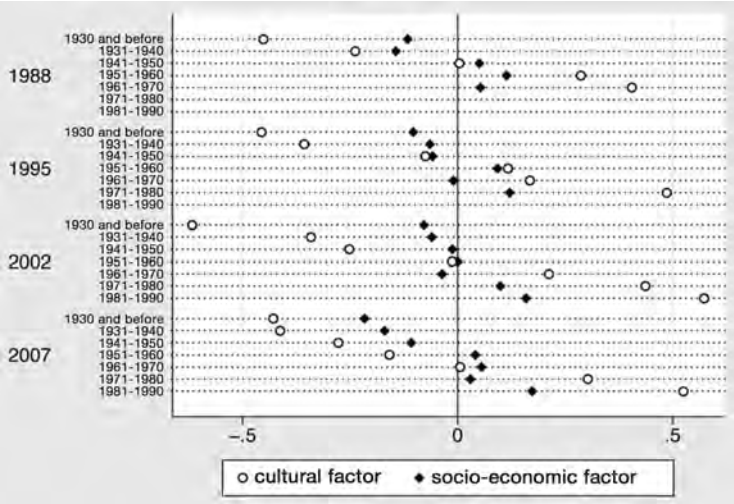
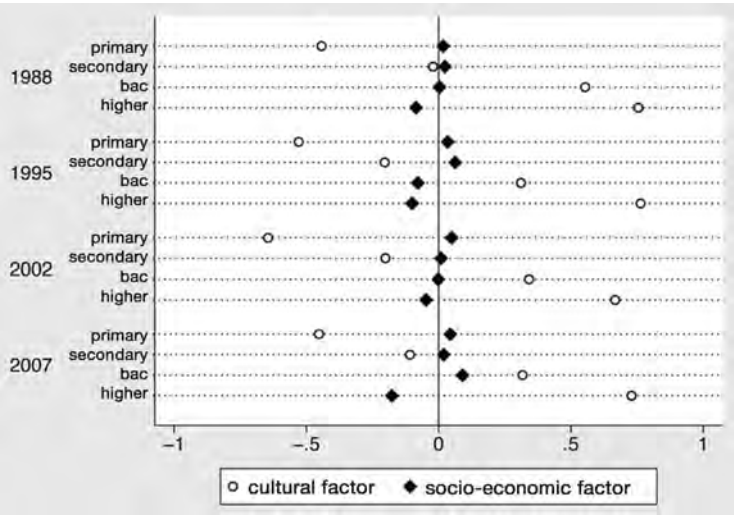


Figure 12. Average position by education level



Annex 3. Results of the first-round model on votes for the FN and ecological candidates

Figure 13. Predicted probabilities of voting for the FN

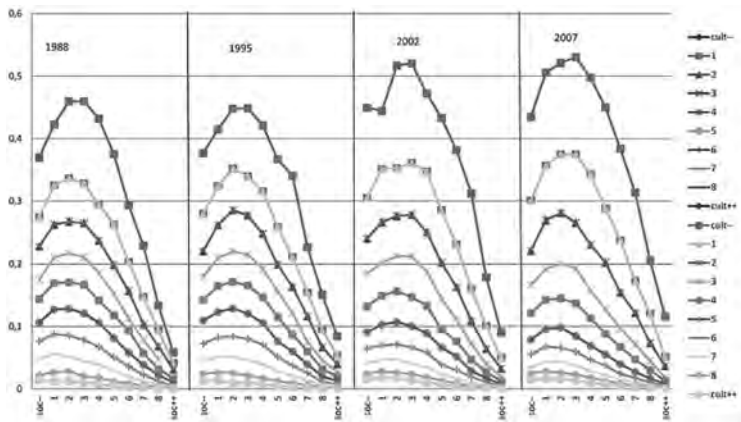


Figure 14. Predicted probabilities of voting for ecological candidates

